DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT EDSM No:

III.1.1.32

ENGINEERING DIRECTIVES AND STANDARDS

Volume: III Effective Date: 09/25/2008

Chapter: 1 Revision Date:

Section: 1 Subject: CONSTRUCTABLITY / BIDDABILITY REVIEW

Directive: 32

1. PURPOSE:

This directive is hereby established to create a uniform policy for the constructability and biddability review of construction plans and proposals.

2. SCOPE:

This directive covers all District, Headquarters, and Consultant designed and prepared project plans and proposals.

3. FORMS:

Two forms have been developed to perform constructability and biddability reviews (attachments 1 & 2). These forms can also be found on the Intranet (*Project Development/Design Programs and Documents/Constructability Review*). One form applies to Pavement Preservation and Minor Overlays, and the other is used for all other projects. The proper form is to be completed for each project according to the procedures listed below when performing constructability and biddability reviews.

4. PROCEDURE:

All Projects

Upon completion of the preliminary design, the Designer/Project Manager will complete one of the two forms listed above in accordance with the type of project and the instructions on the form.

General Projects

The Project Manager will then forward the plans to the Project Engineer, District Area Engineer and the HQ Construction Section with a copy of the completed form from Design. The Project Engineer must then complete the form under Plan-in-Hand (PIH) and return to the Designer/Project Manager before a Plan-in-Hand (PIH) can be scheduled. This form will then be used at the PIH to review and discuss the project. The Designer/Project Manager will then complete the design and resubmit the plans at Advance Check Print (ACP) with copies of the earlier completed forms. The District will perform a review of the ACP to verify all PIH notes were addressed, and to again check the constructability of the project. Comments noted shall be placed on the form and returned to the Designer/Project Manager. The form will again be sent to the District with the proposal and final plans to perform a biddability review.

Pavement Preservation and Minor Overlays

The Project Manager will forward the plans to the Project Engineer, District Area Engineer and the HQ Construction Section with a copy of the completed form from Design. **The Project Engineer must complete the form under Final Construction review.** The form will then be returned to the Project Manager for completion of the proposal.

5. OTHER ISSUANCES AFFECTED:

All other directives, memoranda, or instructions issued heretofore in conflict with this directive are hereby rescinded.

6. EFFECTIVE DATE:

This directive will be effective immediately upon receipt.

WILLIAM H. TEMPLE CHIEF ENGINEER

Attachment 1 Plan Constructability/Biddability Review PAVEMENT PRESEVATION AND MINOR OVERLAYS

PAVEMENT PRESERVATION AND MINOR OVERLAYS

PLAN / CONSTRUCTABILITY / BIDDABILITY REVIEW Instructions

Purpose:

- To provide information to assist in producing quality plans.
- To provide a history of information that is easily accessible.
- To provide questions that would stimulate discussion of potentially problematic areas.
- To provide questions that will stimulate checking for all details and items required to complete the project.
- To provide aid during design for QA/QC

Instructions for completing the form

- The preliminary portion of the form shall be filled out by district design and signed by ADA of Engineering and copy submitted with the preliminary plans.
- Final Plan portion shall be filled out and signed by the Project Engineer and original submitted with the final plans. It is encouraged that the Area Engineer and the Project Engineer both review the plans.
- If answer to the question is in blue box (or lightly shaded if in black and white), a comment is **NOT** required.
- Most questions are designed that a "NO" answer will require comments on what is missing or needed.
- Most questions are designed that a "YES" answer means the plans meet the project needs or a follow up question is required.
- If comment is lengthy, show reference number on notes page for easy reference.
- Pavement Preservation Project Managers will ensure all comments are addressed and copy all reviewers.
- Each review is considered complete when all comments are addressed
- If question is answered N/A, question is not applicable to project.

PAVEMENT PRESERVATION AND MINOR OVERLAYS PLAN / CONSTRUCTABILITY / BIDDABILITY REVIEW

State Project No.	Route No.	
F.A.P. No.	Parish	
Project Name	District	
Name:		
Date of Site Visit:		

Description	PRELIM Design		FINAL Const		N/A	COMMENTS			
	Υ	N	Υ	N		Comment	Response		
I. TITLE SHEET									
 Are limits shown on Title Sheet in agreement with summary sheets? 									
2. Are project limit exceptions noted? (RR, Bridge, etc)									
3. Are all applicable standards plans noted?									
4. Is the traffic data current and does it reflect actual conditions?									
5. For multiple projects, are all project numbers shown?									
II. TYPICAL SECTION SHEETS									
1. Is this a "Functional" Overlay?									
1a. If no, is it a "Structural" Overlay?									
2. Is the District in agreement with the proposed pavement type?									
Does typical section match design from Pavement Engineer?									

Description		PRELIM Design		FINAL Const																																				COMM	MENTS
	Υ	N	Υ	N		Comment	Response																																		
If a turn lane is being considered does the typical section fit within existing right-of-way?																																									
5. Is the subgrade soil survey included in plan?																																									
6. For asphalt pavement, ils the design criteria shown? (ESALs)																																									
7. Is the existing typical section shown?																																									
8. If transitions at bridges or begin and end project are required, are details included?																																									
9. Is laboratory information included for existing roadway?																																									
10. Are limits of cold planing shown?																																									
11. Are striping and new lane widths shown?																																									
12. Will project drain properly during construction?																																									
13. Are underdrains included in the plans?																																									
14. Are Design Exceptions required/noted?																																									
15. Is earthwork/base course construction required?																																									
15a. If so, is the method of construction applicable?																																									
16. Are station limits shown?																																									
17. Are all transitions shown?																																									
III. SUMMARY SHEETS																																									
A. EARTHWORK																																									
1. Is method of payment for earthwork / borrow satisfactory?																																									
B. DRAINAGE																																									
Is review of plans by the Hydraulics Section required?																																									
Will existing ditch cleaning be required?																																									
2a. If yes, are the limits and pay items included?																																									
Is there identification and adequacy of all drainage items and quantities?																																									
Is there a method to connect new and existing drainage structures?																																									

Description	PRELIM Design		FINAL Const		N/A	COMI	MENTS
	Υ	N	Υ	N		Comment	Response
5. If drainage structures are being required, is method of backfilling shown?							
6. Is bedding item included?							
7. If metal pipe is allowed, is pH and resistivity information included in plans?							
C. EROSION CONTROL							
Have sufficient temporary erosion control items been included?							
Are permanent erosion control items required?							
2a. If yes, list types							
D. MISCELLANEOUS							
For items designated for removal, is method of payment included?							
4. Are there any salvageable materials defined?							
4a. If yes, has location for hauling been defined?							
5. Is traffic maintenance aggregate required?							
5a. If yes, How much?							
Is the amount of contractor retained cold planed asphalt defined?							
7. If amount of contractor retained cold planed asphalt is <75% of total RAP quantity, has approval been obtained?							
Is an item for saw cutting required for asphaltic concrete pavement patching?							
Is an item for saw cutting included for removal of concrete drives?							

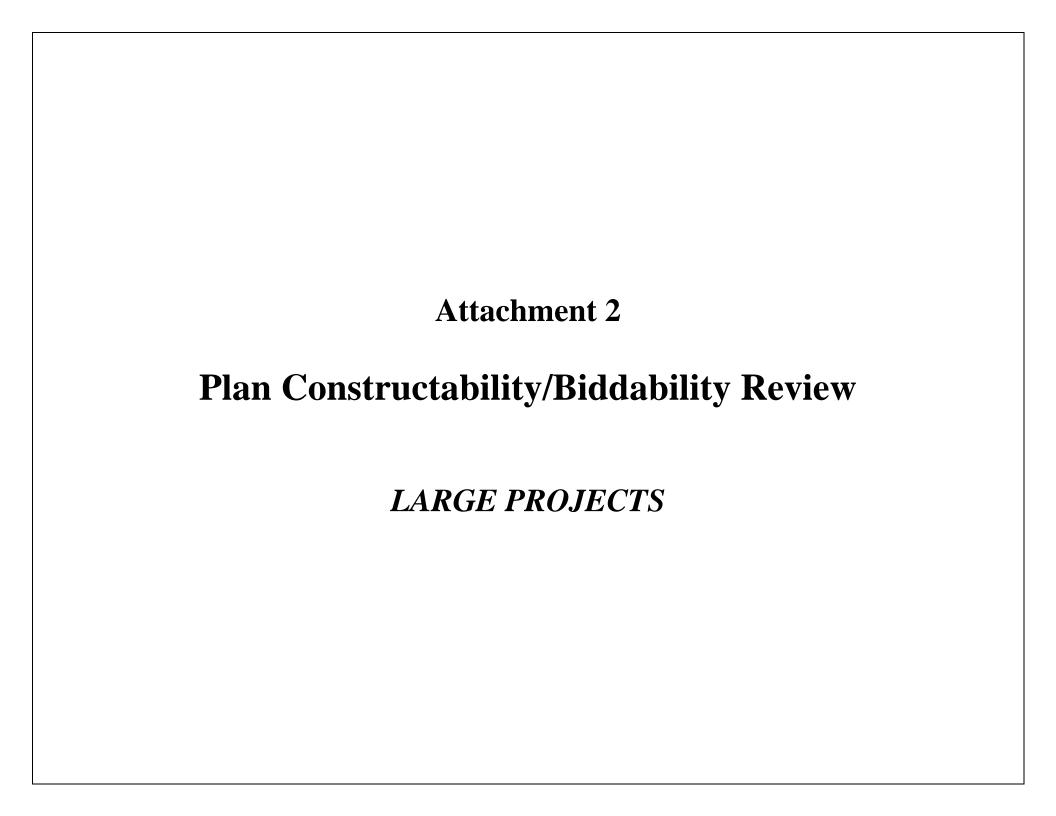
Description	PRELIM Design		FINAL Const																																		Const		Const				N/A	COMN	MENTS
	Υ	N	Υ	N		Comment	Response																																						
 Are exceptions shown and properly depicted in tables? (RR, Bridges, etc.) 																																													
11. Are work elements identified clearly, even those formally noted as 'no direct pay', and all corresponding pay items included with adequate quantities to construct project?																																													
12. Do pay items conform to current "Schedule of Pay Items"/Site Manager?																																													
13. Have specialty Items been given appropriate numbers compliant with Site Manager and Trns*port?																																													
 Is a project site laboratory or project site laboratory (equipped) required? Please list type. 																																													
15. Do loop detectors exist?																																													
15a. If yes, will existing loop detectors be destroyed by construction?																																													
15b. If loop detectors are being replaced, are all pay items included (i.e. conduit, junction boxes, conduit, etc.)?																																													
15c. Has Traffic Section requested cameras?																																													
16. Are there notes and/or items covering pay for traffic control items?																																													
IV. GEOMETRIC DETAILS																																													
 Have all areas where improvements to the alignment are possible been addressed? 																																													
 Is required information on geometric sheets (e.g. curve data, centerline, etc.) 																																													
Are required superelevation corrections on plans?																																													
4. Will changes in the superelevation affect driveway or property access?																																													

Description		ELIM sign	FINAL Const																																												Const		Const																						N/A	COMM	MENTS
	Υ	N	Υ	N		Comment	Response																																																																		
V. SEQUENCE OF CONSTRUCTION																																																																									
Is through traffic is to be maintained																																																																									
1a. If no, is detour routes provided?																																																																									
2. Has someone from HQ Construction reviewed the plans?																																																																									
2a. If so, who?																																																																									
3. Are traffic operations requirements properly addressed? (i.e., signing, pavement markings, TC Details, etc.)																																																																									
4. Are there adequate provisions if signs or road markers are to be removed?																																																																									
5. Are there adequate accommodations for intersecting and crossing traffic?																																																																									
6. Have pedestrian and bicycle accommodations been addressed?																																																																									
7. Have restrictions (e.g. lane closure, general construction or peak-hour restrictions in urban areas, schools, festivals, harvesting, RS 48:279 – Night time work) been identified?																																																																									
8. Are items for temporary safety device requirements and provisions included (i.e. guard rail, attenuators, barrier rail, etc.)?																																																																									
9. Are there conflicts between existing and new surfacing being used to maintain traffic (i.e, drop-offs >2", guardrail, etc.)																																																																									
10. If existing parking is affected, have accommodations been made for temporary and permanent parking?																																																																									
VI. GENERAL																																																																									
Is the project constructible w/ typical construction equipment? (ex: tandem trucks, mtv's, etc)																																																																									
Are appropriate general notes and special provisions shown for construction?																																																																									

Description	Design Const		N/A	COMI	MENTS		
	Υ	N	Υ	N		Comment	Response
Are all applicable standard/special details included in plans?							
 If finish grade elevation is increased, will adjustments be needed to the following? 							
- intersections							
- curbs							
- catch basins							
- manholes							
- bridge railing/guard rail							
- shoulders							
- Other							
5. If overlaying a bridge, has Bridge Design been consulted?							
 Have low cost enhancement items been considered? (Rumble strips/stripes, additional signing, safety end treatments, etc.) 							
7. Are plans clear and legible?							
8. Do specifications support the plans?							
 Do current site conditions conform to those represented in plans? (i.e. patching quantities, drives, etc) 							
10. Have ADA requirements been addressed?							
11. Have environmental safeguards on dust control, erosion, noise, and disposal of wastes been addressed?							
12. Is there sufficient horizontal or vertical clearance within the work zone? (overhead utilities, guy wires, tree canopies, power poles, bridges, etc)							
13. Has the Project Engineer received the permits? (COE, NOI, RR, etc.)							

Description											N/A	COMM	MENTS
•	Υ	N	Υ	N		Comment	Response						
14. Have all encroachments been addressed?													
15. Are permit requirements addressed?													
16. Is the amount of construction time in contract sufficient?													
17. Is an assembly period recommended?													
17a. If yes, How many days													
18. If turn lanes are added,													
18a. Are utility adjustments required?													
18b. Any right-of-way issues need to be addressed?													
18c. Hydraulic review needed?													
18d. Geometric review needed?													
18e. Geometric Detail Sheets or Plan/Profile Sheets needed?													
18f. Traffic Engineering review needed?													
18g. Bridge review needed?													
18h. Geotech review needed?													
19. Did you create any S-item wording?													
ACP review by Project Engineer				_	Date								
Constructability / Biddability review by				-	Date								

NOTES PAGE



PLAN / CONSTRUCTABILITY / BIDDABILITY REVIEW Purpose and Instructions

Purpose:

- To provide information to assist in producing quality plans.
- To provide a history of information that is easily accessible.
- To provide questions to stimulate discussion of potentially problematic areas.
- To provide questions to stimulate checking details and items required to complete the project.
- To provide aid during design for QA/QC
- To provide primary discussion for the plan-in-hand meeting

Instructions for completing the form

- The Design Review portion of the form shall be filled out by the designer during design and prior to PIH submittals.
- The form may be filled out by any district person (ADA, Area Engineer, Lab Engineer, etc.) but the Project Engineer must sign the signature sheet that he concurs with the comments. It is encouraged that the Area Engineer and the Project Engineer both review the plans.
- The Project Engineer and any District personnel designated by the Project Engineer are responsible for reviewing the plans and filling out the review form. The Project Engineer and all reviewers must sign the signature sheet at the back of the form. The Area Engineer is also encouraged to review the plans.
- If answer to the question is in blue box (or lightly shaded if in black and white), a comment is **NOT** required.
- Most questions are designed that a "NO" answer will require comments on what is missing or needed.
- Most questions are designed that a "YES" answer means the plans meet the project needs or a follow up question is required.
- Comments should be shown by reference number on notes page for easy reference. (Example III-2)
- Constructability and Plan-in-Hand questions shall be answered prior to the Plan-in-Hand. The plans should provide enough detail to construct the work required.
- ACP and PS&E / Biddability submittal shall have copies of the completed PIH review attached. If missing contact the Project Manager for a copy. The plans and specifications should provide the details and pay items to bid the project.
- Project Managers are required to respond to all comments and copy all reviewers.
- Each review is considered complete when all comments are addressed
- If question is answered N/A, question is not applicable to project.
- 95% Final Plan reviews (ACP) shall have the completed 95% Preliminary Plan (PIH) review attached. It may be helpful to reference the PIH plan set during the ACP review.
- Comments may be required for certain checklist items. Comments are to be written at the back of the form along with reference numbers for the plan section and checklist item number.
- Project managers shall collect all review forms, insert responses to any comments, and copy all reviewers.

APPLICABLE SECTION FOR REVIEW

State	Projec	t No.	Route No.	P/H –Constructability
F.A.	P. No.		Parish	(95% Prelim) Advance Check Print (95% Final)
Proje	ect Nam	ie:		(20701 men)
<u>es</u>	<u>N/A</u>	<u>#</u>	Description	
		I.	TYPICAL SECTION SHEETS	
		II.	SUMMARY SHEETS	
		III.	PLAN-AND-PROFILE SHEETS	
		IV.	DRAINAGE PLAN-AND-PROFILE SHEETS	
		V.	SIGNAL PLANS	
		VI.	GEOMETRIC DETAILS	
		VII.	SUGGESTED SEQUENCE OF CONSTRUCTION	
		VIII.	GENERAL	
		IX.	UTILITIES	
		X.	STRUCTURES	

PLAN-IN-HAND INSPECTION REPORT AND CONSTRUCTABILITY / BIDDABILITY REVIEW

		Desig	n			Cor	nstruc	tion		
		Revie	N/	Pla	n-in-Ha	nd			PS8	ξЕ
Description	Co	omme	nts	Cons	onstructability		ACP		Bidda	bility
·	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No
I. TYPICAL SECTION SHEETS										
Has District been consulted on the pavement type?										
2. Is District in agreement with the typical section?										
3. Are project limits covered by typical sections?										
4. Are superelevation diagrams and tables provided?										
4a. If yes, Is the design speed noted on the diagram?										
5. Does the typical section fit within existing and/or proposed right-of-way? (Check cross										
sections)										
6. Will the typical section drain water from the base course?										
6a.If yes, is there a method/detail to drain and required items?										
7. Is a subgrade layer required?										
7a. If yes, what types are applicable? (List Types)										
7b. If no, Is lime treatment provided in the plans?										
8. Are all measurements, thicknesses, and slope rates labeled and accurately indicate what										
is to be constructed?										
Is the minimum ditch elevation dimension shown on the typical section?										
II. SUMMARY SHEETS										
Will existing ditch cleaning be required?										
1a. If yes, are there limits and pay items?										
2. Are there sufficient removal items for the types of pavement/structures being removed?										
3. Is method of payment for earthwork design addressed (e.g. "temporary" borrow,										
"additional excess", detour material, embankment, etc.)?										
4. Have sufficient temporary erosion control items been included?										
5. Are construction entrances required?										
5a. If yes, are the number and section shown?										
6. Is method of payment for removal of pavement satisfactory?										
7. Is traffic maintenance aggregate required?										
7a. If yes, how much?										
8. Is there a summary of drainage structure sheet provided?										

Description 8a. If yes, are items adequately covered? 8b. If no, is one required? Why? 9. Are work elements identified clearly with all corresponding pay items included with adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?		n Construction										
8a. If yes, are items adequately covered? 8b. If no, is one required? Why? 9. Are work elements identified clearly with all corresponding pay items included with adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?	Review/			n-in-Ha	nd			PS8	ξE			
8a. If yes, are items adequately covered? 8b. If no, is one required? Why? 9. Are work elements identified clearly with all corresponding pay items included with adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?	nmer	nts	Cons	tructab	ility	A(CP	Bidda	bility			
8b. If no, is one required? Why? 9. Are work elements identified clearly with all corresponding pay items included with adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?	Yes	No	N/A	Yes	No	Yes	No	Yes	No			
9. Are work elements identified clearly with all corresponding pay items included with adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
adequate quantities to construct project? (i.e. summary tables) 10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
10. Is there any work under this project designated as "no direct pay"? 10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
10a. If yes, is this work clearly linked to a specific pay item that can be quantified in the contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
contractor's bid item list? 11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
11. Are permanent erosion and pollution control items included? III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
III. PLAN-AND-PROFILE SHEETS 1. Is adequate right-of-way provided for relocation of utilities? 2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
Is adequate right-of-way provided for relocation of utilities? Is there space between the R/W line and drainage structure to allow for utility relocation? Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?									$ldsymbol{f\perp}$			
2. Is there space between the R/W line and drainage structure to allow for utility relocation? 3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
3. Are right-of-way and property line dimensions shown on plans? 4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
4. Will any right-of-entry agreements be required? 4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
4a. If yes, is this satisfactory? 4b. If yes, who will secure it?												
4b. If yes, who will secure it?												
5. Does existing horizontal or vertical clearance allow for construction?												
6. Are all the utility owners with contact numbers listed?												
7. Are the existing utility locations marked in the plans?												
Are the utility conflict boxes and their location noted on the plans?												
Will overlay affect the intersection, gutters, or curbs drainage?												
9a. If yes, are adjustments required?												
10. Are retaining walls required?												
10a. If yes, are details provided for the walls?												
11. Are all oil or gas wells on the project shown on the plans?												
12. Are encroachments on the right-of-way being addressed?												
13. Are existing improvements within 50' of required right-of-way shown on the plans?												
14. Is there any potential hazardous waste site / UST?												
15. Have construction or drainage servitudes been shown?												
16. Are the limits of clearing, grubbing, and landscaping shown?												
17. Can any significant tree be allowed to remain?												
a. If yes are those to remain been identified?												
18. Are there apparent conflicts between plans and specifications?												
19. Are the benchmark data, required elevations, and curve data on the plans?												

	Design Construction						on				
		Revie	w/	Pla	n-in-Ha	ınd				&E	
Description	Co	omme	nts	Cons	tructal	oility	A	CP	Bidda	bility	
	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No	
20. Does location of the grade shown on the typical section (sub grade or finished) match grade shown in profile? (Check for label)											
21. Are vertical and horizontal limits of removal clear?											
21a. If yes, are the depths of embedment required excavation shown.											
21b. If yes, are details of removable item required?											
22. Have arrangements been made for relocation of hydrants by utility agreement?											
23. Do general site conditions conform to those represented in plans?											
24. Is existing topography accurate and up-to-date?											
25. Does profile fit the terrain?											
IV DRAINAGE BLAN AND BROSH E INSORMATION											
IV. DRAINAGE PLAN-AND-PROFILE INFORMATION											
1. If subsurface drainage is being used, is there any evidence of effluent sewerage entering											
existing roadside ditches?											
1a. If yes, what is the plan of action											
2. Is adequate outfall information shown?											
3. Has sufficient drainage excavation and/or cleaning of outfall lateral required for adequate drainage been shown?											
3a. If yes, who is cleaning laterals (City, Parish)?											
4. Will cleaning be required for existing drainage structures?											
4a. If yes, are pay items included?											
5. Will special ditch protection items be required?											
5a. If yes, identify type											
6. Have existing drainage patterns, their continuity, and high water indications been identified?											
7. Are ditches compatible with existing and proposed drainage structures?											
8. Is design drainage elevations shown in the plan compatible with the existing conditions?											
9. Is there a provision for temporary drainage?											
10. Is water being trapped on the lanes on travel lanes which are to be maintained during construction?											
11. Is there a method to connect new and existing drainage facilities?											
12. Is a second profile sheet required for right and left of centerline?											
V. SIGNAL PLANS											
(Review with Traffic Engineer)											
Are pole locations in conflict with utilities or drainage structures?											
2. Are a controller, signal head, pull box, and pedestrian poles required?											

			Desig	n Construction							
		Review/ Pla				n-in-Ha	ınd			PS8	ξE
	Description	C	omme	nts	Cons	structal	oility	A	CP	Bidda	bility
		N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No
3.	Is the existing controller compatible to added items?										
4.	Are overhead power lines in conflict with span wire?										
5.	Will fiberglass insulators be required or relocated?										
6.	Are there any signs attached to the overhead span wire for the existing traffic signal?										
7.	Is the disposition of existing signal poles and signal equipment to be removed identified?										
8.	Is the sidewalk being obstructed by signal equipment access?										
9.	Does the foundation match requirements for span lengths/mast arms?										
	9a. If yes, are details provided?										
10.	Are street name signs included on mast arms?										
	10a. If yes, are details provided?										
11.	Are communication cables overhead?										
	11a. If yes, will they fit with overhead electric?										
12.	Do loop detectors exist?										
	12a. If yes will existing loop detectors be destroyed by construction?										
	12b. If loop detectors are being replaced, are all pay items included (i.e. conduit, junction										
boxes, o	conduit,										
	etc.)?										
	12c. Will cameras be added?										
13.	Is jacking and boring required?										
14.	Is open trenching required?										
15.	Is right-of-way adequate for signal equipment? (e.g. for signal and lighting foundations,										
	utility relocations, construction easements, adequate work space, desirable clear zone,										
	etc.)										
16.	Are temporary traffic signals required?										
	16a. If yes, who will be responsible?										
	VI. GEOMETRIC DETAILS										
1.	Have all areas where improvements can be made to alignment been addressed?										
2.	Are sight distances adequate at intersections? (r/w flares, obstructions, etc.)										
_	Is the required information shown on the geometric sheets (e.g. curve data, sight										
	distance, vertical datum, centerline, etc.)										
4.	Is existing access being denied due to inadequate sight distance?										
4.	is existing access being defined due to madequate signit distance!										
	VII. SEQUENCE OF CONSTRUCTION										
1	Is through traffic to be maintained?										
1.	1a. If no, is a detour provided?										
	ia. ii iio, is a deloui provided?				1	1					

		Design				Construction									
			Revie	N/	Pla	n-in-Ha	nd			PS8	ķΕ				
	Description	C	omme	nts	Cons	structab	ility	A	CP Bidda		bility				
		N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No				
2.	If local traffic only, are sufficient details and items provided for school buses, mail carriers, emergency vehicles, or other local traffic to be maintained.														
3.	Is temporary sheeting required to maintain existing/required travel lanes?														
	3a. If yes, are specifications and details provided?														
	3b. If yes, is method of payment satisfactory?														
4.	Are there conflicts between new and existing roadway used to maintain traffic?														
5.	Are traffic control plans for the bridge coordinated with roadwork phasing?														
6.	Can utility crossings be resolved via scheduling restrictions (i.e. weekends, after hours) or temporary structures?														
7.	Do utilities conflict with required special construction sequencing?														
8.	Are traffic operations requirements properly addressed? (i.e., signing, pavement markings signal, etc.)														
9.	Are lanes on which traffic is to be maintained compatible to local conditions?														
10.	Is there sufficient clearance within the work zone for the operations (such as crane swing room)?														
11.	Are there adequate accommodations for intersecting and crossing traffic?														
12.	Have pedestrian and bicycle accommodations been addressed?														
13.	Has a method of containing bridge slopes during phased construction (at end bent) and approach grade separation been identified?														
14.	Have restrictions (e.g. lane closure, general construction or peak-hour restrictions in urban areas) been identified?														
15.	Are there notes covering traffic signal modifications for phased construction?														
16.	Are there notes covering pay for traffic control items?														
17.	Is the Traffic Control Plan clear, complete, and approved?														
	Are items for temporary safety devices, requirements and provision (i.e. guardrail, attenuators, barrier rails, etc.)?														
	Have the traffic control signs, warning devices and barricades been located?														
	neduling & Phasing														
	Is scheduling and phasing coordinated with activity needs? (Schools, festivals, harvesting, parallel routes, etc.)														
21.	Will staging areas be provided to contractors that will accommodate the sequence of work and work areas?														
22.	Is the type and limits of fence for temporary construction servitude identified?														
	Have requirements for local/state/federal special permits been addressed?														

	Design Construction						uction					
		Revie	N/	Pla	n-in-Ha	nd			PS	ξΕ		
Description	C	omme	nts	Cons	tructat	oility	A	CP	Biddabilit			
	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No		
24. Is existing access being denied by obstacles (walls, guard rails, etc.) or grade differentials												
to adjacent property?												
25. Is safe pedestrian access and access to business and residences provided?										$ldsymbol{f\perp}$		
Detours												
26. Is detour facility clearly depicted?												
27. Do the detour limits conflict with roadway improvements?												
28. Is method of payment for detour satisfactory?												
29. Can detours be built due to grade difference between new and existing roadways?												
30. Is traffic addressed on side streets?												
31. Is night work required?												
31a. If yes, are hours and/or restrictions shown?												
VIII CENEDAL												
VIII. GENERAL1. Are appropriate general notes and special provisions required for construction provided?												
Are appropriate general notes and special provisions required for construction provided? 2. Is there adequate construction access for demolition?												
3. Are there adequate provisions if signs or road markers are to be removed?												
4. Are contamination sites delineated?												
5. If there is a contamination site, have utility relocations been addressed?												
6. Does the Corp permit require work not shown on plans?												
7. Have environmental safeguards or dust control, erosion, and disposal of wastes been addressed?												
8. Are there provisions for noise abatement (e.g. permanent noise walls)?												
9. Do conflicts exist between landscaping and planting requirements with utilities (e.g.												
irrigation lines) and billboards?												
10. Is there sufficient space (25'-30') for power mowers between additional trees that are planted?												
11. Is there an erosion control plan provided?												
12. Where pile driving is to be encountered near existing structures, should pre-existing												
conditional survey (video/pictures) be performed on the existing structures?												
12a. If yes, are items provided?												
13. Did you create any S-item wording?												
IX. UTILITIES												
Will there be disruptions of utilities and provisions for restoration?												
2. If utilities are outside of limits of construction but within the r/w, have all parties (including												

	Design					Construction							
		Revie	w/	Pla	Plan-in-Hand					&E			
Description	C	omme	ents	Cons	tructal	oility	Α	CP	Bidda	bility			
	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No			
utility owners) agreed to allow them to remain in-place?													
3. Has responsible party for utility relocation been identified with provisions?													
4. Are there overhead utilities, guy wires, etc. in potential conflict with operations and access of large equipment?													
5. Are there gas lines above other utilities?													
6. Are there conflicts between gravity and force sewer mains and construction?													
6a. If yes for force main, is there a utility agreement for relocation?													
6b. If yes for gravity sewer, are plans included for relocation of sewer?													
7. Are there utility conflicts with drainage?													
8. If project is preceded by clearing and grubbing contract, have utilities been relocated?													
9. If there are pipelines, are they shown in the profile?													
10. If there is a need for a specified utility corridor?													
10a. If yes, is it shown?													
11. Should an integrated utility relocation plan (scheduling and final location of utilities) be													
included in the construction plans?													
11a. If yes, is the integrated utility relocation plan included in the construction plans?													
X. STRUCTURES													
GENERAL NOTES, INDEX, AND BRIDGE SUMMARY OF QUANTITIES													
GENERAL NOTES & INDEX													
Is information complete, accurate, clear and free from multiple interpretations?													
Have all environmental commitments been identified?													
Has the disposition of salvageable materials been addressed?													
4. Are utility permit requests addressed?													
BRIDGE SUMMARY OF QUANTITIES													
Are all necessary items shown and properly footnoted?													
Are all quantities and units adequately shown?													
3. Have all items been brought forward properly to the Master Summary of Quantities?													
4. If the project is composed of multiple project numbers or funding sources have the													
quantities been subdivided?													
5. Have all non FHWA participating items been identified?													
GENERAL BRIDGE PLANS													
1. Are all geometric controls shown and consistent with other sheets?													
2. Does each plan sheet provide a clear layout and configuration of the intended structure (matchlines, span/bent numbering, joint types, etc.)?													
3. Does the roadway and bridge interface agree?													
Has all guard rail installation information been shown?													

		Design Construction						n					
			Reviev	v/	Pla	n-in-Ha	nd				&E		
	Description	Co	omme	nts	Cons	tructab	ility	A	CP	Bidda	bility		
		N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No		
5.	Are vertical clearances shown (navigable waterways, roads under bridge, etc.)?												
6.	Is deck drainage type specified (drain holes ,barrier slots, etc)?												
	HYDRAULIC DATA												
1.	Is the hydraulic table shown?												
2.	If river gauges are present, has the removal and disposition of these gauges been addressed?												
3.	Has predicted scour, scour protection and abutment protection been adequately addressed?												
4.	Have design water surface elevations been shown?												
5.	Do all water surface elevations reference the project survey datum?												
6.	Have any channel changes been addressed in the plans?												
	GEOTECHNICAL INFORMATION (If not addressed on foundation plan)												
1.	Have all borings, CPT, test piles, and settlement plates been shown on the plans?												
2.													
3.	Is Pile Batter indicated (if not shown on bent details)?												
	CONSTRUCTION CONFLICTS												
1.	Is the existing structure shown?												
2.	Are all utilities to remain shown?												
	SUPERELEVATION DIAGRAMS												
(Super	elevation implementation plans should always be included when												
	elevation transition occurs on the bridge. The bridge superelevation will I the design.)												
1.	Is the superelevation implementation plan clear and concise?												
2.	Is the transition from roadway to bridge clearly conveyed?												
	FOUNDATION PLAN												
(A four	ndation plan may be used when geometry is complex, additional information												
	rired for layout of foundation or conflicts with foundation construction need												
to be i	dentified)												
1.	Has all temporary shoring for any phased construction been covered adequately?												
2.	Are all conflicts identified in the plans?												
3.	Are all utilities to remain shown?												
4.	Is the pile batter shown (if not shown elsewhere)?												
5.	Have all overhead or underground obstructions or conflicts that may impede pile driving operations been addressed?												
6.	Will pile driving interfere with maintenance of traffic?												
7.													

		Desig	n							
		Revie	w/	Plai	n-in-Ha	nd			PS	&E
Description	C	omme	nts	Cons	tructat	oility	A	CP	Bidda	bility
·	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No
8. Are there any residences, businesses, or facilities (including instrumentation) in the area										
that may be affected by the noise and vibration from the pile driving operations or										
construction activities?										
9. Will vibration monitoring be needed?										
SUBSTRUCTURE										
Does reinforcement location allow for proper placement of concrete? (Special attention										
should be given to splice locations)										
Are any special details required for superstructure anchorage?										
SUPERSTRUCTURE / APPROACH SPANS AND MAIN SPAN DETAILS										
Are details adequate for layout of deck reinforcement?										
Are any special details required for special areas of the deck?										
3. Are deck joint details shown?										
4. Are drains removed over railroads, roadways, and revetments?										
5. Are girder connection details shown?										
6. Is adequate information provided for the fabrication of girders, cross frames, and										
diaphragms?										
7. Has the pouring sequence been specified?					-					
APPROACH SLABS										
Are the drainage details for the approach slab adequately shown?										
NAVIGABLE WATERWAYS										
Are details for clearance gauges shown?										
2. Are details for navigation lighting provided?										
3. Has pier protection been addressed?										
MOVABLE BRIDGES										
1. Are all required Special Details included (End Drains, fencing, etc.) ?										
2. Has operator's house been located?										
3. Has adequate parking and access been provided for operators house?										
As-builts										
Are As-built drawings required for this project?										
2. Would As-built drawings be helpful for bidding and/or construction?										
3. Are As-built drawings included with these plans?										
Permitting Issues										
Are utility permit requests adequately addressed?										

		Desig	n	Construction						
	I	Revie	N/	Pla	n-in-Ha	ınd			PS	ξЕ
Description	C	omme	nts	Cons	tructat	oility	A	CP	P Bidda	
	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No
2. Are there any special requirements that need to be addressed in the plans for the										
construction of a bridge over a navigable water way or roadway? (These requirements										
may be related to agreements with the USCG, COE or for purposes of maintenance of										
traffic)										
3. Are there any access issues that may affect the contractors' construction of the bridge or										
demolition of the existing bridge that have not been addressed in the plans?										
4. Is the water depth at the site of sufficient depth to float barges?										
5. Will barges obstruct navigation?										
6. Are all environmental commitments being met by the proposed construction methods?										
(These commitments should be noted in the General Notes section of the plans)										
7. Has the removal of the existing bridge been adequately coordinated with the permitting										
agencies and any special requirements covered in the plans?										
Construction Site Access										
1. Are there any access issues the contractor may have for the delivery of materials to the										
project site? (Posted bridges)										
2. Are there any driveways or property entrances that will have to be maintained during										
construction, relocated and / or reconstructed?										
3. Will any work bridges or haul roads be required for the construction of the bridge?										
4. Is there sufficient right of way to construct the bridge structures?										
5. Are there any other construction related issues that will affect the constructability of the										
project that needs to be accounted for in the construction estimate?										
6. Are there any utilities supported on the structure that need to be addressed in the plans?										
Maintenance of Traffic										
For navigational traffic, have channel alignment and clearance issues been addressed?										
2. If the project is to be constructed utilizing phased construction, will the construction										
scheme facilitate maintenance of traffic?										
General Constructability and Biddability										
Are there adequate staging areas for the contractor?										
Are all required work items covered under proper pay items?										
3. Have quantities for phase construction been broken out on the individual sheets to										
facilitate payment during construction?										
4. Has uniformity of formwork been adequately considered in all of the bridge elements?										
K. SPECIAL PROVISIONS (95% Final Plan Review)										
Is asbestos or creosote timber being removed?										
(a). Are special instructions and disposal defined?										
(b). Has entity to handle been identified?										

		Desigi	n			Con	struct	tion		
	F	Review/ Plan-in-Hand						PS	&E	
Description	Co	Comments			tructab	ility	ACP		Bidda	ability
	N/A	Yes	No	N/A	Yes	No	Yes	No	Yes	No
Is the contract type and time period sufficient?										
3. Is there a treatment for the removed steel if it has red lead?						·				

Plan-in-hand inspection report prepared by	Date
Project Engineer	Date
J	
ACP review by	Date
	Duit
Project Engineer	Date
1 Toject Eligineer	Duto
Constructability / Biddability review by	Date
Constructaonity / Diddaonity leview by	Date
Project Engineer	Date
r roject Engineer	Date

NOTES PAGE

Item No	Comment	Response